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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,788	02/16/2007	Reiner Fischer	2400.0210000/SRL	2694
26111 7590 07/22/2010 STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				
EXAMINER				
CHU, YONG LIANG				
ART UNIT		PAPER NUMBER		
1626				
MAIL DATE		DELIVERY MODE		
07/22/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,788

Applicant(s)

FISCHER ET AL.

Examiner

YONG CHU

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 and 15-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14 is/are rejected.
- 7) ☒ Claim(s) 1-5 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 11/24/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-24 are pending are pending in the application. Claim 1 is amended.

Claims 6-13 and 15-24 are withdrawn as non-elected subject matter.

Information Disclosure Statement

Applicants' Information Disclosure Statement, filed 11/24/2009 is acknowledged. Please refer to Applicant's copies of the PTO-1449 submitted herewith.

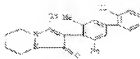
Response to Amendment

The amendment by Applicants' representative Ms. Cynthia M. Bouchez dated on 04/30/2010 has been entered.

Response to Arguments/Remarks

Claim rejection under 35 U.S.C. §103(a)

Applicant's amendment and arguments over rejected claims have been fully considered, but found not persuasive. Applicant's arguments are based primarily on the Court opinions in *Takeda v. Alphapharm* and *KSR Int'l v. Teleflex Inc.* Applicants argue that the Office is required to (1) identify some reason that would have led a person of ordinary skill in the art to select a particular compound as a "lead compound" in the cited reference; and (2) show that a reason existed, based on what was known at the time of the invention, to perform the chemical modifications necessary to achieve the presently claimed compounds. See *Takeda v. Alphapharm*, at 1362-1363. Specifically,

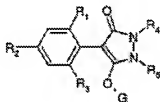



(CAS RN 329706-33-4)

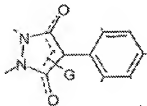
Applicants argue that the '973 compound

disclosed in the previous Office action **should not be** regarded as a “lead compound”, because Maetzke discloses thousands of potential compounds, and exemplifies approximately 200 of those compounds. Maetzke, p. 49-67, Tables 1-7. However, only seven of which are compounds wherein R2 is a 2-halo-substituted phenyl.

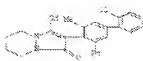
Furthermore, Maetzke discloses herbicidal testing data for 24 specific compounds, at p. 65, Table B2. However, nearly all of the 24 tested compounds are substituted at the R2 position with unsubstituted phenyl, yet none of the tested compounds are substituted at the R2 position with a 2-substituted phenyl. This argument is not persuasive. All the exemplified approximately 200 compounds are within the claimed scope of invention of



the formula (I) . Even only 24 compounds are disclosed for its herbicidal activity that does not exclude the rest compounds to have the similar herbicidal activity, because it is not required for a patent application to disclose testing results of all the claimed species. All the tested compounds share the basic core



structure . Therefore, the previously cited '973 compound



(CAS RN 329706-33-4) is an appropriate "lead compound" to start

with.

Next, Applicants argue that there was no reasonable expectation of success to perform the chemical modifications necessary to arrive at the presently claimed compounds. Specifically, Applicants argue that In *Takeda*, the court upheld a finding that "there was no reasonable expectation in the art that changing positions of a substituent on a pyridyl ring would result in beneficial changes." *Takeda*, at 1361. Furthermore, the court in *Takeda* reiterated that modern decisions have cautioned against finding a *prima facie* case of obviousness based on the generalization that structurally similar compounds are presumed to have similar properties. *Id.* Applicants' arguments are not persuasive for the following reasons:

1) The *Tekeda* decision on nonobviousness was based on two variations of a lead compound: a change of the substituted location on the pyridyl ring from 5-position to 6-position (i.e. ring walking) and change substituents from ethyl group to methyl group. In contrast with the *Tekeda* case, the only difference between prior art compound and the instant compound is the "ring walking" from the *para*-position to the *meta*-position. The ring cores in the two formulae are the same. Furthermore, the *Tekeda* decision on nonobviousness was based on the conclusion that the selected lead **compound b** for antidiabetic research taught away from its use. As such, the court concluded that *Alphapharm* failed to make a *prima facie* case of obviousness. The court continued its analysis and found that even if *Alphapharm* succeeded in

making a prima facie showing, *Taketa* would still prevail because any prima facie case of obviousness was rebutted by the unexpected results of pioglitazone's **nontoxicity**, see pages 1172-3 of the decision. It is very obvious that none of the *Taketa* situations fits into the instant rejection.

2) According to KSR, "A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at ___, 82 USPQ2d at 1397. "[I]n many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* Office personnel may also take into account "the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.* at ___, 82 USPQ2d at 1396. In addition to the factors above, Office personnel may rely on their own technical expertise to describe the knowledge and skills of a person of ordinary skill in the art. The Federal Circuit has stated that examiners and administrative patent judges on the Board are "persons of scientific competence in the fields in which they work" and that their findings are "informed by their scientific knowledge, as to the meaning of prior art references to persons of ordinary skill in the art." *In re Berg*, 320 F.3d 1310, 1315, 65 USPQ2d 2003, 2007 (Fed. Cir. 2003). As noted by the Court in *KSR*, "[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one", 550 U.S. at ___, 82 USPQ2d at 1396 (emphasis added)), or solves a problem which is different from that which the applicant was trying to solve, may also be considered for the purposes of 35 U.S.C. 103. (The Court in *KSR* stated that "[t]he first error in this case was holding that courts and patent examiners should look only to the problem the

patentee was trying to solve. The Court of Appeals failed to recognize that the problem motivating the patentee may be only one of many addressed by the patent's subject matter. The second error [was].that a person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem." 550 U.S. at ___, 82 USPQ2d at 1397. Federal Circuit case law prior to the Supreme Court's decision in *KSR* is generally in accord with these statements by the *KSR* Court. See e.g., *In re Dillon*, 919 F.2d 688, 693, 16 USPQ2d 1897, 1902 (Fed. Cir. 1990) (*en banc*) ("[I]t is not necessary in order to establish a *prima facie* case of obviousness that both a structural similarity between a claimed and prior art compound (or a key component of a composition) be shown and that there be a suggestion in or expectation from the prior art that the claimed compound or composition will have the same or a similar utility **as one newly discovered by applicant**"; *In re Lintner*, 458 F.2d 1013, 1018, 173 USPQ 560, 562 (CCPA 1972) ("The fact that [applicant] uses sugar for a different purpose does not alter the conclusion that its use in a prior art composition would be *prima facie* obvious from the purpose disclosed in the references.")).

Therefore, the Office has established *prima facie* case for obviousness over the prior art teachings. Accordingly, the rejection is maintained. If Applicants intend to overcome the *prima facie* obvious rejection by demonstrating the instantly claimed subject matter (with very limited scope) with unexpected results, an additional Declaration is required to cure the defect of the previous Declaration. Applicants also have to demonstrate the entire claimed scope is unexpected over the prior art teaching

with side-by-side experimental comparison among the cited prior art compound and the instantly claimed species.

Claim objection

Objection to claims 1-5 and 14 for containing non-elected subject matter is maintained, because the instantly examined claims 1-5 and 14 still contain non-elected subject matter.

Conclusions

- No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Chu, *Ph.D.*, whose telephone number is 571-272-5759. The examiner can normally be reached on 7:00 am - 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. M²Kane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Status Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Yong Chu/
Primary Patent Examiner
Art Unit 1626